<u>FLUOR</u>

Memorandum

T4180-03-SLF-028

To:

S. J. Trent

Date:

September 10, 2003

From:

S. L. Fitzgerald, Manager

Telephone:

373-7495

WSCF Analytical Services

W/Attachments

W/O Attachments

cc:

T. F. Dale S3-28 D. M Thornton S3-30 S. L. Fitzgerald S3-30 D. Hart S3-30 H. K. Meznarich S3-30 L. C. Swanson E6-35

S3-30 File/LB

J. E. Trechter M. Neely

S3-30

Subject:

FINAL RESULTS FOR 200-PW-2/200-PW-4 OU- SAMPLE DELIVERY GROUP WSCF20031116 SAF NUMBER F03-007

References: (1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEN-001, October 31, 2002

> (2) HNF-SD-CD-QAPP-017, Rev. 5, Waste Sampling and Characterization Facility Quality Assurance Plan

This letter contains a narrative (Attachment 1) for the sample delivery group (WSCF20031116), the analytical results (Attachment 2) and the sample receipt information (Attachment 3).

slf/ddw

Attachments 3





T4180-03-SLF-028

ATTACHMENT 1

NARRATIVE

Consisting of 2 pages Cover page not included

Sample Delivery Group	WSCF20031116
Sample Matrix	Water
Sample Visual	Clear
SAF Number	F03-007
Data Deliverable	Summary Report

Introduction

One (1) water sample (B174B6) from the GPP was received at the WSCF Laboratory on August 13, 2003. The sample was analyzed for those analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Protection Program-Letter of Instruction*, referenced in the cover letter.

The narrative (Attachment 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and Request for Sample Analysis forms are included as Attachment 3.

Analytical Methodology for Requested Analyses

 VOA's by EPA SW-846 Method 8260A. Analytical work was performed with no deviations to the approved procedure. The Benzyl Alcohol was removed from the requested compound list per the client. See page(s) 3-3 for details.

Comments

VOA's – The hold time(s) for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page(s) 2-8, 2-9 and 2-10 for QC details.

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Troy Dale

WSCF Production Control

Abbreviations

Hg - Mercury

IC - Ion Chromatography

ICP - Inductively Coupled Plasma

ICP/AES - ICP/Atomic Emission Spectroscopy

ICP/MS - ICP/Mass Spectrometry

Total U - Total Uranium

AT/TB - Total Alpha/Total Beta

AEA – Alpha Energy Analysis

WTPH-G - Total Hydrocarbons-Gasoline

CN - Cyanide

Am - Americium

Cm - Curium

Pu - Plutonium

Np - Neptunium

GEA - Gamma Energy Analysis

H3 - Tritium

Sr - Strontium 89, 90

WTPH-D - Total Hydrocarbons-Diesel

Cr+6 – Hexavalent Chromium

NH4 - Ammonium

T4180-03-SLF-028

ATTACHMENT 2

ANALYTICAL RESULTS

Consisting of 10 pages Cover page not inclued

WSCF ANALYTICAL RESULTS REPORT

for

Ground Water Protection Program

Richland, WA 99352

Attention: Steve Trent

Analytical:

Client Services:

All results are reported on an "as received" basis unless otherwise noted in the comment section.

Confidentiality Notice: The information contained in this report is privileged and confidential information intended only for the use of the addressee. If the reader of this report is not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone at (509) 373-7020.

Contract#: F03-007

Report#: WSCF20031116 Report Date: 10-sep-2003

Report WGPP/ver. 1

Ground Water Protection Program

WSCF ANALYTICAL RESULTS REPORT

		Steve Trent F03-007: 200-PW-2/PW-4							-	G	roup #:	WSCF20031116	
Sample #	Client ID			CAS#	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyza Sample Dessive
w030000708		GPP	TRENT	75-35-4	1,1-Dichloroethene	MALITA	LA-523-455	U	< 1.00	ug/L	1.00	1,0	Analyze Sample Receive
W030000708		GPP	TRENT	79-01-6	Trichloroethene		LA-523-455	U	< 1.00		1.00	1.0	
W030000708	And the state of t	GPP	TRENT	71-43-2	Benzene	NEQUE DE LA CA	LA-523-455	Ü	and providing a line of	ug/L	Andrew Editor	A REPORT OF STREET	08/26/03 08/13/03 08/13/03
W030000708	 PALE BODGET 17. 	GPP	TRENT	108-88-3	Toluene	Filher Calmini	LA-523-455	U		ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	108-90-7	Chlorobenzene	Japan serret i et la li	LA-523-455	i g	de de Neie Lea	ug/L a	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	75-34-3	1.1-Dichloroethane	建酸物 动物	LA-523-455	U	< 1.00 < 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	100-41-4	Ethylbenzene	n English telepe na	LA-523-455	u .	< 1.00	ug/L	iai iata alalahan m	1.0	08/26/03 08/13/03 08/13/03
W030000708	, Paramera y	GPP	TRENT	100-42-5	Styrene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03 08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	10061-01-5	cis-1,3-Dichloropropene	Person report seletat.	LA-523-455	ับ	< 1.00	ug/L ug/L	1.00	1.0 1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	10061-02-6	trans-1,3-Dichloropropene	lik kuuntpiiri	LA-523-455	u U	< 1.00	ug/L	1.00	1,0	08/26/03 08/13/03 08/13/03
W030000708	Acres and a series of the	GPP	TRENT	107-06-2	1.2-Dichloroethane	Principi di sendidi	LA-523-455		< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03 08/26/03 08/13/03 08/13/03
W030000708	Entitlett, det bligger	GPP	TRENT	108-10-1	4-Methyl-2-Pentanone		LA-523-455	u X	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	124-48-1	Dibromochloromethane		LA-523-455	u .	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	127-18-4	Tetrachloroethene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	1330-20-7	Xylenes (total)		LA-523-455	U .	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	540-59-0	1,2-Dichloroethene(Total)		LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	56-23-5	Carbon tetrachlonde	e i in deletelet	LA-523-455		< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708	re inizirie Latria en 1994.	GPP	TRENT	591-78-6	2-Hexanone		LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03 08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	67-64-1	Acetone	en er esse (40)	LA-523-455		< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	67-66-3	Chloroform		LA-523-455	u U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	71-55-6	1,1,1-Trichloroethane	and the second	LA-523-455		< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	74-83-9	Bromomethane	e il 4 din estituti.	LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane		LA-523-455	e jë se se e	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708	a debuth en	GPP	TRENT	74-87-3	Chloromethane		LA-523-455	ri il sele il i	< 1.00	ug/L	1.00	1,0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	75-00-3	Chloroethane	and in the	LA-523-455	and the second	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708		GPP	TRENT	75-01-4	Vinyi chloride	at New White	LA-523-455	rituri de del	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708	en e	GPP	TRENT	75-01-4 75-09-2	Methylenechloride	4	LA-523-455		- 1.00	ug/L ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03

MDL=Minimum Detection Limit U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

Ground Water Protection Program

^{* -} Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols Report WGPP/ver. 1

WSCF ANALYTICAL RESULTS REPORT

Attention: Project: Sample # Client ID			eve Trent 3-007: 200-I	PW-2/PW-4		WSCF				G	roup #:	WSCF20031116	
Sample #	Client I	D		CAS#	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze Sample Receive
W030000708	B174B6	GPP	TRENT	75-15-0	Carbon disulfide		LA-523-455	U	< 1.00	ug/L	1,00	1.0	08/26/03 08/13/03 08/13/03
W030000708	B174B6	GPP	TRENT	75-25-2	Bromoform		LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708	B174B6	GPP	TRENT	75-27-4	Bromodichloromethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708	B17486	GPP	TRENT	78-87-5	1,2-Dichloropropane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708	B174B6	GPP	TRENT	78-93-3	2-Butanone		LA-523-455	U	< 1.00	ug/L	1.00	1,0	08/26/03 08/13/03 08/13/03
W030000708	B174B6	GPP	TRENT	79-00-5	1,1,2-Trichloroethane		LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708	B174B6	GPP	TRENT	107-87-9	2-Pentanone		LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03
W030000708	B174B6	GPP	TRENT	104-51-8	n-Butylbenzene		LA-523-455	U	< 1.00	ug/L	1.00	1.0	08/26/03 08/13/03 08/13/03

MDL=Minimum Detection Limit

U - Analyzed for but not detected above limiting criteria.

RQ=Result Qualifier

DF=Dilution Factor

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

Report WGPP/ver. 1

Ground Water Protection Program

WSCF ANALYTICAL COMMENT REPORT

2 - 4

Attention: Project Number Group #:

20031116

Sample # Client ID

Lab Area

Test

Comment

Lab Areas:

VALGROUP - Group Validation LOGSAMP - Login for Sample

VALTEST - Test Validation LOGTEST - Login for Tests TESTDATA - Test Data Entry

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WSCF TENTATIVELY IDENTIFIED PEAK REPORT

2-5

Units

Attention: Project Number

Client ID

Group #:

20031116

Project Numbe

Sample #

Test Name

Peak Name

CAS#

RT

RQ

Result

RQ=Result Qualifier

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WSCF METHOD REFERENCES REPORT

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-523-455

LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846

EPA SW-846 8000B

DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS

EPA SW-846 8260B

VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://apweb02/asponlinedocs/wscf/sample %20mgmt/ProcedureMethodCrossReference.pdf. This document includes on-line links to full-text versions of the procedures and methods, where available.

Report Date: 10-sep-2003 Report#: WSCF20031116 Report WGPPM/0

W13q Worklist/Batch/QC Report for Group# WSCF20031116

WL#	S# Batch	QC#	Tray Type	Sample#	Test	
		23514	BLANK		VOA Ground Water Protection	1
		23514	LCS		VOA Ground Water Protection	1
		23514	MS	W030000708	VOA Ground Water Protection	1
		23514	MSD	W030000708	VOA Ground Water Protection	1
		23514	SAMPLE	W030000708	VOA Ground Water Protection	1
		23514	SPK-RPD	W030000708	VOA Ground Water Protection	1
		23514	SURR	W030000708	VOA Ground Water Protection	1

SDG Number: WSCF20031116

Matrix: WATER

Test: VOA Ground Water Protection

SAF Number: F03-007 Sample Date: 08/13/03 Receive Date: 08/13/03

QC Type	Analyte	CAS#	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID:	W030000708								
BATCH	QC ASSOCIATED W	/ITH SAMPLE							
MS	1,1-Dichloroethene	75-35-4	22,000	88.000	% Recov	08/26/03	63.000	117.000	
MS	Benzene	71-43-2	27.000	108.000	% Recov	08/26/03	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	52,000	104,000	% Recov	08/26/03	84,000	116.000	
MS	Chlorobenzene	108-90-7	25.000	100.000	% Recov	08/26/03	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	52,000	104.000	% Recov	08/26/03	82.000	136,000	
MS	Toluene-d8	2037-26-5	52.000	104.000	% Recov	08/26/03	89.000	119.000	
MS	Toluene	108-88-3	26.000	104,000	% Recov	08/26/03	76.000	120.000	
MS	Trichloroethene	79-01-6	24.000	96.000	% Recov	08/26/03	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	22.000	88.000	% Recov	08/26/03	63.000	117,000	
MSD	Benzene	71-43-2	27.000	108,000	% Recov	08/26/03	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	51.000	102,000	% Recov	08/26/03	84.000	116.000	
MSD	Chlorobenzene	108-90-7	26.000	104.000	% Recov	08/26/03	79,000	119.000	v v v v v v v v v v v v v v v v v v v
MSD	1,2-Dichloroethane-d4	17060-07-0	52.000	104.000	% Recov	08/26/03	82.000	136,000	
MSD	Toluene-d8	2037-26-5	52.000	104.000	% Recov	08/26/03	89.000	119.000	The Company of the Co
MSD	Toluene	108-88-3	27.000	108,000	% Recov	08/26/03	76.000	120.000	
MSD	Trichloroethene	79-01-6	25.000	100.000	% Recov	08/26/03	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	88,000	0.000	RPD	08/26/03	0.000	10,000	
SPK-RPD	Benzene	71-43-2	108.000	0.000	RPD	08/26/03	0.000	10.000	ind by a beautiful as a first of the original section of the secti
SPK-RPD	Chlorobenzene	108-90-7	104,000	3,922	RPD	08/26/03	0.000	10.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	104.000	0.000	RPD	08/26/03	0.000	25.000	ander van dage in een gewonde op
SPK-RPD	Toluene-d8	2037-26-5	104,000	0.000	RPD	08/26/03	9.000	25.000	
SPK-RPD	Toluene	108-88-3	108.000	3.774	RPD	08/26/03	0.000	10.000	sustantina eta estano e a uno cua orrane lunteratarin 1960 (1966).
SPK-RPD	Trichloroethene	79-01-6	100,000	4.082	RPD	08/26/03	0.000	10.000	
SURR	4-Bromofiyorobenzene	460-00-4	52.000	104.000	% Recov	08/26/03	84.000	116.000	PROCESSOR CONTROL CONT
SURR	1,2-Dichloroethane-d4	17060-07-0	51,000	102.000	% Recov	08/26/03	82.000	136.000	
SURR	Toluene-d8	2037-26-5	51.000	102.000	% Recov	08/26/03	89.000	119.000	

SDG Number: WSCF20031116

Matrix: WATER

Test: VOA Ground Water Protection

SAF Number: F03-007 Sample Date: 08/13/03 Receive Date: 08/13/03

QC Type	Analyte	CAS#	OC Found	OC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BATCI	er a registration and a second and a second and a second	·			sacracias a trons insultation	invitalantament variation		eriani	er ver enganne engannere e
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/L	08/26/03			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/L	08/26/03			U
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/L	08/26/03			
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 1.0	n/a	ug/L	08/26/03	0.000	5.000	U
BLANK	1,1-Dichlorgethene	75-35-4	< 1.0	n/a	ug/L	08/26/03			
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L	08/26/03			U
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 1.0	n/a	ug/L	08/26/03			
BLANK	2-Hexanone	591-78-6	< 1.0	n/a	mg/L	08/26/03			U
BLANK	2-Pentanone	107-87-9	< 1.0	n/a	mg/L	08/26/03			Ú
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	mg/L	08/26/03	18112-01111111	2011 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	U
BLANK	Acetone	67-64-1	< 1.0	n/a	mg/L	08/26/03			U
BLANK	Bromodichloromethane	75-27 - 4	< 1.0	n/a	ug/L	08/26/03			U
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L	08/26/03			u
BLANK	4-Bromofluorobenzene	460-00-4	51.000	102.000	% Recov	08/26/03	84.000	116.000	anna feil an chrìobh 1960 agus gan aig agus agus agus agus an an an air Tairean aig a' air an air a' air a' ai Taireann agus an t-aireann agus ga agus agus agus agus an an an air a' an air a' air air air air air air air a
BLANK	Bromoform	75-25-2	< 1.0	n/a	mg/L	08/26/03			Ú
BLANK	n-Butylbenzene	104-51-8	< 1.0	n/a	ug/L	08/26/03	POTO SECRETO DE POTO DE LA PESTO DE	tantanan um tentrufu (62 mili) er	U
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	mg/L	08/26/03			
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	mg/L	08/26/03			en norm ner Boreen om hermende beekeltet, hold hom han ko ti
BLANK	Dibromochloromethane	124-48-1	< 1.0	n/a	ug/L	08/26/03			torra en l <mark>igarios decensiamo conservo la F</mark> olicidade
BLANK	Chloroform	67-66-3	< 1.0	n/a	mg/L	08/26/03		While is a beat more leader	matana ang mga mga mga mga mga mga mga mga mga mg
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L	08/26/03		şalanın öyendirin ili kilin.	narodistratique con ordene i pressure e e un utilità (2011) e u
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 1.0	n/a	ug/L	08/26/03			
anning a sangaran	mana arranga ang salahat sa kanalaran sa kanalaran kanalaran na kanalaran kanalaran kanalaran kanalaran kanala	75-00-3	< 1.0	n/a	ug/L	08/26/03		saggette etgene Helde Ellerde.	
BLANK	Chloroethane	17060-07-0	50,000		% Recov		P2 000	120,000	
BLANK	1,2-Dichloroethane-d4		And the second second second second	100.000	and the second section of the second	08/26/03	82.000	136.000	
BLANK	1,2-Dichloropropane	78-87-5	< 1.0	n/a	ug/L	08/26/03			
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/L	08/26/03	ti kalen kan darak tutu taraka.		U combination (Company) and company and co
BLANK	Bromomethane	74-83-9	< 1.0	n/a	ug/L	08/26/03			U
BLANK	Chloromethane	74-87-3	< 1.0	n/a	ug/L	08/26/03			U

SDG Number: WSCF20031116

Matrix: WATER

Test: VOA Ground Water Protection

SAF Number: F03-007

Sample Date: Receive Date:

QC						Analysis	Lower	Upper	
Туре	Analyte	CAS#	QC Found	QC Yield	Units	Date	Limit	Limit	RQ
BLANK	2-Butanone	78-93-3	< 1.0	n/a	mg/L	08/26/03			U
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L	08/26/03			U
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L	08/26/03			
BLANK	Styrene	100-42-5	< 1.0	n/a	ug/L	08/26/03			U
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/L	08/26/03	0.000	5,000	
BLANK	Toluene-d8	2037-26-5	51.000	102.000	% Recov	08/26/03	89.000	119.000	
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L	08/26/03	CORRO CORRECTOR AND ARTHUR CORO DE ROSCO DE LA CRECER		
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 1.0	n/a	ug/L	08/26/03			U
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L	08/26/03			
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	mg/L	08/26/03			U
LCS	1,1-Dichloroethene	76-36-4	22.000	88.000	% Recov	08/26/03	70.000	130,000	
LCS	Benzene	71-43-2	26.000	104.000	% Recov	08/26/03	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	51.000	102.000	% Recov	08/26/03	84,000	116.000	Mariji in taliki kalan mengalan kalan pengangan kalan kalan berangan kalan kalan kalan berangan berangan beran Kalan kalan kalan kalan salan kalan ka
LCS	Chlorobenzene	108-90-7	26.000	104.000	% Recov	08/26/03	70.000	130.000	
LCS	1, 2-Dichloroethane-d4	17060-07-0	52.000	104,000	% Recov	08/26/03	82,600	136.000	
LCS	Toluene-d8	2037-26-5	51,000	102.000	% Recov	08/26/03	89.000	119.000	
LCS	Toluene	108-88-3	26.000	104,000	% Recov	08/26/03	70 000	130,000	
LCS	Trichloroethene	79-01-6	25.000	100.000	% Recov	08/26/03	70.000	130.000	

T4180-03-SLF-028

ATTACHMENT 3

SAMPLE RECEIPT INFORMATION

Consisting of 3 pages Cover page not included

Waste Sampling and Characterization Facility P.O. BOX 1970 S3-30, Richland, WA 99352

PHONE: (509) 373-7004/FAX: (509) 373-7134

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Ground Water Protection Program

Richland, WA 99352 Attn: Steve Trent

Customer Code: GPP

PO#: 117504/ES20

Group#: 20031116

Project#: F03-007 Proj Mgr: STEVE TRENT

Phone: 373-5869

The following samples were received from you on 08/13/03. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for

using Waste Sampling and Characterization Facility.

Sample#	Sample	Id Matrix Tests Scheduled	Sample Date
W030000708	B174B6	GPP - TRENT Water @VOA-GPP	08/13/03
,		Test Acronym Description	
Test Acı	ronym	Description	
@VO	A-GPP	VOA Ground Water Protection	

411905

FH-Central Plateau Project	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST F03-007-015 Page										of .
Collector Johansen/Pfister/Pope/Hughes	Company Contact LC Hulstrom	Telepho 373-3				Project Coo TRENT, SJ	rdinator	714			rnaround
Project Designation 200-PW-2/200-PW-4 OU - QC Sampling	Sampling Location 200-PW-2					SAF No. F03-007		Air Quali	ity 🗌	30	Days
Ice Chest No.	Field Logbook No. HNF-N-3361	COA 117504E	DA Method of Shipment 7504ES10 Government Vehicle								
Shipped To Waste Sampling & Characterization	Offsite Property No.			Bill of Lad	ing/Air Bill	No.		1			
POSSIBLE SAMPLE HAZARDS/REMARKS				1	ì						
	Preservation	HCl to pH <2 Cool 4C	<u> </u>	<u> </u>	ļ					ļ. <u>.</u>	<u> </u>
Special Handling and/or Storage	Type of Container	aGs*	<u> </u>						[
Special Italianing and/or Storage	No. of Container(s)	3									
9.5	Volume	40mL									
SAMPLE ANALYSIS		See item (1) in Special Instructions.			,	. ia					
20031116	<u> </u>										
Sample No. Matrix * Sar	nple Date Sample Time			<u> </u>			4 2 4				g to seem on year on seem of
B174B6 W 030000708 WATER 8/1	3/07 09000	N X	<u> </u>								<u> </u>
			┼─-		╁			 -		 	
	· · · · · · · · · · · · · · · · · · ·		<u> </u>	 	+		_		+		
											1
	Sign/Print Names			ECIAL INST	RUCTI	ONS					Matrix *
JSPOPE/48/0- 8/13/01 /350 X	Deho Boo	Pate/Time	1380 ₍₁₎	VOA - 8260A	(TCL); V	OA - 8260A (A	dd-On) {2-Pe	ntanone, Benzyl	alcohoł, n-Butylb	enzene)	S=Soit SE=Sediment SO=Solid SI=Studge
		Date/Time			•						W = Water O=Oil A=Air
Reinquisieu Dy Removeu Prom	eved by/stoted in								4		DS=Drem Solid DL=Orum Liqui
Relinquished By/Removed From Date/Time Reco	ived By/Stored In	Date/Time		•							T=Tissee WI=Wipe L=Liquid
Relinquished By/Removed From Date/Time Reco	ived By/Stored In	Date/Time									V=Vegetation X=Other
Relinquished By/Removed From Date/Time Reco	ived By/Stored In	Date/Time									
LABORATORY Received By SECTION		Ť	itle							Date/Time	
FINAL SAMPLE Disposal Method				Die	posed By					Date/Time	

Sims, Vic T

From:

Avres, Doris E

Sent: To: Thursday, August 14, 2003 9:10 AM Neely, Michael; Trent, Stephen J

Cc:

Dale, Troy F; Trechter, John E Jr.; Beebe, Kevin L; Sims, Vic T

Subject:

RE: SDGs 20031112, 20031116, and 20031117 Sample Receipt Issues

See my comments below.

Doris

----Original Message---

From:

Neely, Michael

Sent:

Thursday, August 14, 2003 5:31 AM Trent, Stephen J; Ayres, Doris E

To: Cc:

Dale, Troy F; Trechter, John E Jr.; Beebe, Kevin L; Sims, Vic T

Subject:

SDGs 20031112, 20031116, and 20031117 Sample Receipt Issues

Importance:

High

Steve:

Three (3) of the five (5) GPP sample delivery groups (SDGs) that were received at WSCF yesterday (08-13-03) are depicted below:

- 1. SDG 20031112 Samples B17C41, B17C42, B17C43 Under SAF F03-012
- 2. SDG 20031116 Sample B174B6 Under SAF F03-007
- 3. SDG 20031117 Sample B173V6 Under SAF F03-006

There are several issues associated with these SDGs that will require resolution by GPP prior to WSCF proceeding with the analyses. The issues requiring GPP resolution are briefly summarized below.

- 1. SDG 20031112 On the chain of custody (COC), GPP is requesting TPH-Diesel Range WTPH-D. However, there are no "special instructions" on the COC requesting kerosene. Is GPP interested in WSCF reporting kerosene and diesel range compounds from the WTPH-D analyses? Please proceed and report kerosene and the diesel range compounds.
- 2. SDG 20031116 On the COC, GPP is requesting benzyl alcohol as part of the VOA 8260A Add-On list. However, benzyl alcohol is actually part of the WSCF Semi-VOA 8270A Add-On list. There is insufficient sample [i.e., VOA protocol requires only three (3) 40-mL samples] to analyze for the benzyl alcohol using the Semi-VOA protocol, which would require at least a 1-L sample [assuming that no QC is required, and four (4) 1-L samples if full QC is required]. Therefore, does GPP want WSCF to remove benzyl alcohol from the list of requested analytes on the COC (i.e., no analyses for benzyl alcohol will be performed by WSCF)? Or, would GPP like to provide WSCF with the additional sample volume in order for WSCF to perform the Semi-VOA analyses for benzyl alcohol? Please remove benzyl alcohol from the list of requested analytes on the COC.
- 3. SDG 20031117 On the COC, GPP is requesting ICP-MS 200.8 "Complete". WSCF assumes that GPP is not really requesting the "complete" WSCF library for ICP-MS method 200.8, and is only requesting the specific metals that are listed after the word "complete". Are these valid assumptions? Please report only the specific metals that are listed after the word "complete".

Thank you for your help with this. Your expeditious reply would be greatly appreciated.